

Applicant: Koyama, et al.
Serial No.: 09/757,778
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Attorney's Docket No.: 07977-
108002 / US3190D1

claims. Claims 1, 6, 7, 9, 22, and 28-30 have been rejected under 35 U.S.C. §102(e) for allegedly being anticipated by U.S. Patent No. 5,936,698 to Koyama (hereinafter "Koyama"). Claims 3, 18, 19, 21, 22, and 28-30 are rejected under 35 U.S.C. §103(a) for allegedly being unpatentable over U.S. Patent No. 5,760,855 to Nakase et al. (hereinafter "Nakase"). Applicants respectfully traverse all objections and rejections of the claims and request reconsideration and allowance of the above-referenced application in light of the following remarks.

The only rejection facing these present claims are based upon 35 U.S.C. §§102 and 103, to Koyama and Nakase, whose filing dates are April 12, 1996 and September 30, 1996, respectively. The present application, however, claims priority to U.S. Patent Application No. 08/770,785, filed December 19, 1996, issued as Patent No. 6,246,454 B1, which claims priority to Japanese Patent Application No. 7-349229, filed December 18, 1995, as acknowledged by the U.S. Patent and Trademark Office. Accordingly, the earliest priority date of the present invention predates the two cited references, and, therefore, the references are not proper prior art references.

The Patent Office, however, has deemed that the Applicants cannot rely on the foreign priority paper to overcome the art rejection because a translation of the paper (priority

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application) has not been made of record. Applicants are currently preparing a verified translation of the priority document, which Applicants submit will remove the references as prior art, thereby obviating the rejections. Applicants will submit the verified translations when they have been completed.

However, in order to provide a fully responsive paper to the outstanding Office Action, Applicants further submit that the cited references do not render the rejected claims as anticipated or unpatentable as they do not, either alone or in proper combination, teach or suggest each and every element of the claimed invention.

For example, independent claims 1 and 3 recite a device wherein the pattern comprises the same material as the bus line and is in the same layer as the bus line, the pattern is adjacent to the side edge of the substrate, and the bus line is apart from the pattern and the side edge of the substrate. Moreover, independent claim 22 recites a method for forming a semiconductor device including forming a pixel thin film transistor and a bus line over a substrate, wherein the bus line is connected with a short ring provided over the substrate adjacent to a side edge of the substrate, and cutting the bus line and leaving behind a pattern, wherein the bus line cut from the short ring is apart from the pattern and the edge side of

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the substrate. Dependent claims 6, 7, 9, 18, 19, 21, 22, 28-30, which depend, either directly or indirectly, from independent claims 1, 3, and 22 incorporate all the limitations thereof.

Koyama discloses methods for utilizing an anodization technique for suppressing the occurrence of hillocks and whiskers in the manufacture of active matrix liquid crystal display devices in which peripheral driver circuits and a pixel area are formed monolithically on a glass substrate.

Koyama, however, does not teach or suggest a device wherein the pattern comprises the same material as the bus line and is in the same layer as the bus line, the pattern is adjacent to the side edge of the substrate, and the bus line is apart from the pattern and the side edge of the substrate, nor the methods for making such devices, as in the claimed invention. Accordingly, Koyama does not teach each and every element of the claimed invention.

Nakase discloses an active matrix type liquid crystal display panel. The Patent Office acknowledges, on page 3, lines 8-10, of the Office Action, that Nakase does not teach or suggest all the elements of the claimed invention. For example, Nakase does not teach or suggest a pattern of the same material as the bus line.

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The Patent Office cites Koyama, specifically referring to the comment, "it is well known in the art that 'formed at the same time' implies 'formed of the same material', as evidence by Koyama (col. 8, lines 64-67)," at page 2, lines 15-16, of the Office Action to cure this deficiency of Nakase. Col. 8, lines 64-67 of Koyama describes a source electrode 807 and a drain electrode 806 "which is connected to a pixel electrode 805 made of ITO. The source electrode 807 and the drain electrode 806 are formed at the same time as the second-layer wiring lines by using the same material as the latter." Applicants submit that while the source and drain electrodes can be formed at the same time as the second-layer wiring lines by using the same material, it does not teach that if something is formed at the same time, it necessarily must be formed of the same material. For example, it is conceivable that two processes involved in the making of the display device can be carried out simultaneously, without using the same material. Moreover, this section of Koyama describes a source and drain electrode being of the same material as the second-layer wiring lines. It does not teach a pattern which is of the same material and in the same layer as the bus line. Accordingly, the references Koyama and Nakase do not teach each and every element of the claimed invention.

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In addition, Applicants respectfully submit that there must be some teaching, suggestion, or motivation for combining or modifying the teachings of one reference with the teachings of the other. While the two references pertain to active matrix type liquid crystal display devices, they are directed to two different aspects of such devices. Applicants submit that there is no suggestion or motivation for the skilled artisan to combine the two references and arrive at the claimed invention. Accordingly, Applicants respectfully submit that claims 1, 3, 6, 7, 9, 18, 19, 21, 22, and 28-30 directed to a device wherein the pattern comprises the same material as the bus line and is in the same layer as the bus line, the pattern is adjacent to the side edge of the substrate, and the bus line is apart from the pattern and the side edge of the substrate, and the methods for making such devices, as in the claimed invention, are not rendered anticipated or obvious by the references Koyama and Nakase, alone or in proper combination. Moreover, Applicants submit that these references are not proper prior art references and will provide an English translation of the priority document to the Patent Office once it is completed.

In light of the foregoing remarks, Applicants submit that claims 1, 3, 6, 7, 9, 19, 21, 22, and 28-30 are patentable and request reconsideration and withdrawal of the rejection under 35

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U.S.C. §§102 and 103. Applicants further request that the objection to claims 4, 5, 8, 17, 18, 20, and 25-27, for being dependent on a rejected base claim be reconsidered and withdrawn as well.

In view of the above, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited. The Examiner is encouraged to contact the undersigned attorney to discuss any outstanding issues and to work with the attorney towards placing the application in condition for allowance.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 12/19/2002

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